

REMARKS

By this amendment, claim 2 has been canceled. Therefore, on entering this amendment, claims 1 and 3-8 are all the claims pending in this Application pending in the application.

Claims 1, 3, 4 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuboi et al. (US 2001/0048249)

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuboi et al (US 2001/0048249).

Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuboi et al (US 2001/0048249) in view of Jong et al (2002 IEEE publication, "Smart Silicon Sensor – Example of Hall Effect Sensors").

Claim 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuboi et al (US 2001/0048249) in view of Yagota et al. (US 5,801,462)

The Applicants traverse the rejections and request reconsideration.

Claim Rejections Under 35 U.S.C. § 102

Rejection of Claims 1, 3, 4 and 7 as being anticipated by Tsuboi et al.

The present invention as recited in claim 1 is a moving-magnet type linear motor that comprises a linear guide, a linear motor and a detecting means. The linear guide is required to movably support and guide left and right sides of a table arranged parallel and opposite to a fixed base. In the exemplary embodiment of Fig. 1 (shown below), sliders 7 and guide 8 form the linear guide. The table 3 is arranged parallel to and opposite to the fixed base 1.

The Applicants amend claim 1 to include limitations from claim 2. In addition, claim 1 (as amended) clearly recites that the magnetic-pole detector is arranged on an opposite side of the linear scale with respect to the table.

FIG. 1 Of the present Specification

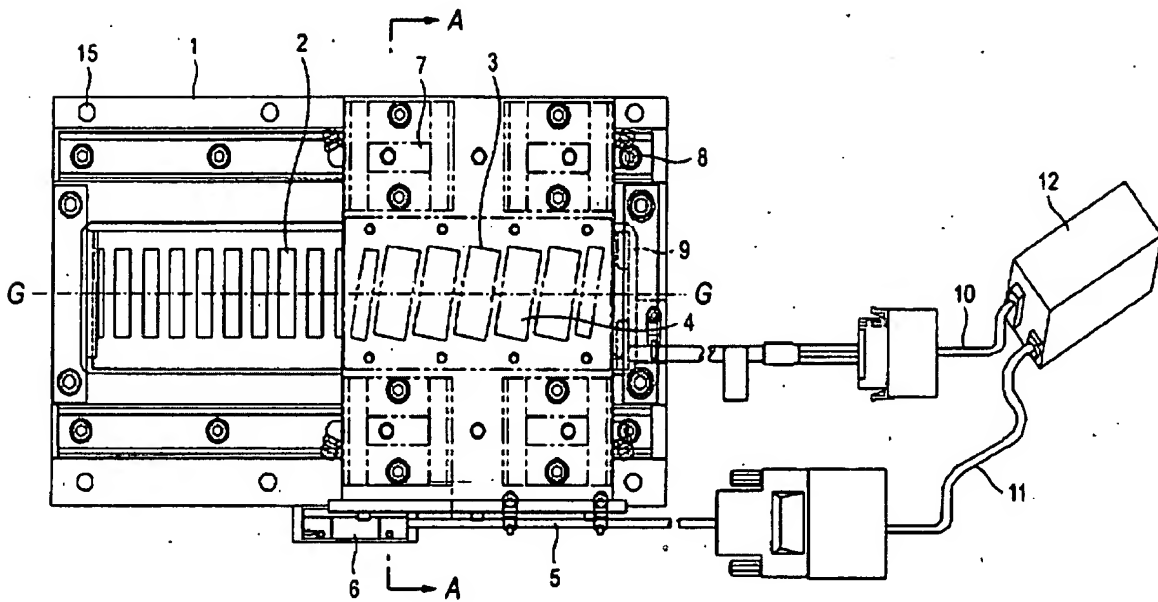


FIG. 3 of Tsuboi

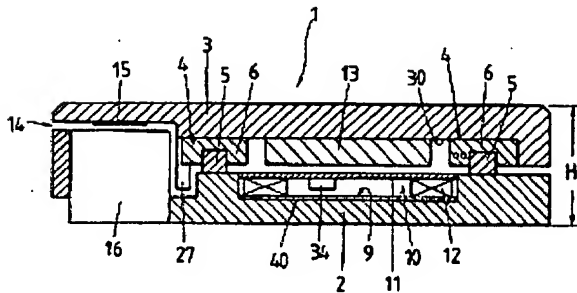
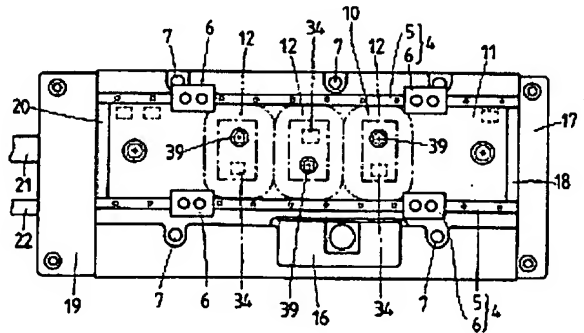


FIG. 4 of Tsuboi



The Examiner finds the magnetic-pole detector (recited in original claim 2 and now recited in amended claim 1) to be equivalent to Hall-effect IC 34 of Tsuboi (see, page 4 of the Office Action). However, as shown in Fig. 3, the Hall-effect IC 34 of Tsuboi is not arranged on an opposite side of the linear scale 15 with respect to the table 3 as required by the amended claim 1. On page 5 of the Office Action, the Examiner contends that it would have been obvious to arrange the hall element magnetic pole detector and a magnetic-pole detector [*sic*] on opposite end of linear scale to avoid influence from stator magnetic field. However, the amended claim 1 requires the arrangement to be on opposite side of the liner scale **with respect to the table**.

Further, Examiner refers to paragraph [0012] and Fig. 15 of Tsuboi, and asserts the magnetic linear scale 95 of Tsuboi corresponds to *"a magnetic pole detector magnet fixed on the table side so as to have an equal pitch as the permanent magnet for a magnetic field"* of the present invention. However, Tsuboi fails to teach that the magnetic scale 95 has an equal pitch as the permanent magnet 90 for a magnetic filed, as required by the amended claim 1.

Claim 1 (as amended) is not disclosed or suggested by Tsuboi at least because of the above noted differences between the present invention and the alleged teachings of Tsuboi.

Claims 3, 4 and 7 are dependent on claim 1. Therefore, they are patentable for at least the same reasons.

Further, with regard to claim 3, Examiner asserts that Fig. 1 of Tsuboi teaches four mounting holes at each outer corners (see page 3 of the Office Action). However, this is merely a speculation since Tsuboi is totally silent about what the four circular portions at each outer corners of the fixed base 2 in Fig. 1 correspond to.

Further, with regard to claims 4 and 7, Examiner asserts that paragraph [0022] and Fig. 1 of Tsuboi teach that the sensor head 16 includes a serial-signal conversion circuit which converts a scale signal of the linear motor output from the detecting means into a serial signal (see page 3 of the Office Action). However, at least paragraph [0022] and Figure 1 of Tsuboi do not teach anything about a serial-signal conversion circuit.

Claim Rejections Under 35 U.S.C. 103(a)

Rejection of Claim 2 as being unpatentable over Tsuboi et al.

This rejection is rendered moot as claim 2 has been canceled.

Rejection of Claims 5 and 8 as being unpatentable over Tsuboi et al in view of Jong et al.

Claims 5 and 8 are dependent on claim 1, and therefore, are allowable at least for the same reasons. Moreover, Jong does not overcome the deficiencies noted in the teachings of Tsuboi.

In addition, claims 5 and 8 require the sensor head to include a memory into which a motor parameter of the motor is input. The Examiner admits that Tsuboi does not suggest such a memory but Jong is alleged to suggest such a memory. Indeed, Fig. 1 of Jong shows a memory. However, this is shown as an “address memory.” There is no further discussion in Jong regarding this memory. Therefore, this cannot be construed to be equivalent to the memory of claims 5 and 8 into which a motor parameter is required to be input.

The Examiner has not established prima facie obviousness of claims 5 and 8 at least because he has not shown where in the combined teachings of Tsuboi and Jong a suggestion for a memory into which a motor parameter is required to be input.

Rejection of Claim 6 as being unpatentable over Tsuboi et al in view of Yagota et al.

Claim 6 is dependent on claim 1, and therefore, is allowable at least for the same reasons.

Moreover, Yagota does not overcome the deficiencies noted in the teachings of Tsuboi.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Chidambaram.S.Iyer/

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON DC SUGHRUE/265550

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CUSTOMER NUMBER

Chid S. Iyer
Registration No. 43,355

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